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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/668,675	09/22/2000	David Alan Ackerman	27-15-1-13-11-2	2242

7590 04/23/2003

Docket Administrator Rm 3C 512  
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[REDACTED] EXAMINER

SCOTT JR, LEON

[REDACTED] ART UNIT

[REDACTED] PAPER NUMBER

2828

DATE MAILED: 04/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/668,675	ACKERMAN ET AL.
	Examiner	Art Unit
	Leon Scott, Jr.	2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on \_\_\_\_\_.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-28 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1-28 is/are rejected.  
 7) Claim(s) \_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 11) The proposed drawing correction filed on \_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.  
 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1.) Certified copies of the priority documents have been received.  
 2.) Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3.) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.  
 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) The translation of the foreign language provisional application has been received.  
 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) Notice of References Cited (PTO-892)                    4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)                    5) Notice of Informal Patent Application (PTO-152)  
 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.                    6) Other:



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**The following is a quotation of the second paragraph of  
35 U.S.C. 112:**

**The specification shall conclude with one or more  
claims particularly pointing out and distinctly claiming the  
subject matter which the applicant regards as his invention.**

**Claims 1-28 are rejected under 35 U.S.C. 112, second  
paragraph, as being indefinite for failing to particularly point  
out and distinctly claim the subject matter which applicant  
regards as the invention.**

**In line 4 of claim 1 it is not clear what action is  
performed on the DBR laser, claim 1 is indefinite and  
incomplete. Same claim same line it is not clear how said  
action is responsive to a wavelength of a Bragg peak; if the  
laser is not lasing, how is a *wavelength of Bragg peak*  
achieved, what wavelength, what Bragg peak; claim 1 is  
indefinite and incomplete. The recitation: *the light reflected*  
in line 5 of claim 1 lacks a clear antecedent basis. It is not  
clear how or to what the tuning current is applied during the  
illuminating, nor is it clear how the tuning current  
connectively relates to the device as a whole; claim 1 is  
indefinite and incomplete. Finally in claim 1 since the laser  
is not on it is not clear what does the illuminating; claim 1 is  
indefinite and incomplete. In claim 2 it is not clear how the  
Fabry-Perot cavity is biased to absorb incident light; incident  
light from what, claim 2 is indefinite and incomplete, In lines  
1-3 of claim 3 the illuminating includes: supplying another  
current to the DBR laser, however since a laser comprises  
many parts, it is not clear to what part of the laser the  
current is applied that causes spontaneous emission of light, is  
the current supplied to the laser active medium; lines 1 and**

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3 if claim 3 is indefinite and incomplete, In lines 1 and 2 of claim 5 it is not clear how the action includes finding a **functional relationship** that associates new values of the tuning current with old values of the tuning current; what functional relationship, claim 5 is indefinite and incomplete. Lines 1 and 2 of claims 7,8 and 11 are functional in scope in that they express a desired result while failing to recite the means and/or method steps necessary to provide those results; for example how does one determine a predictive quantity, as in claim 7 or how does one mark the DBR laser as disqualified with respect to stability, as in claim 8 or how does one determine the relationships between values of a Bragg peak wavelength; claims 7, 8 and 11 are indefinite and incomplete. The recitation: *the performing an act* in line 1 of claim 9 lacks a clear antecedent basis. The recitation: *the quantity is a characteristic of a relationship* in lines 1 and 2 of claim 10 is virtually meaningless in that it is functional in scope. In line 2 of claim 13 it is not clear what constitutes a *time prior to illuminating* is this a day, a week, a month, or 19 milliseconds; claim 13 is indefinite and incomplete. In line 2 of claim 14 what *operating characteristic*; claim 14 is indefinite and incomplete. In line 4 of claim 15 what constitutes *an earlier time*; claim 15 is indefinite and incomplete. In line 6 of claim 16 the recitation: *based in part* is indefinite and incomplete. Claim 17 expresses a desired result while failing to recite the structure and/or methods steps necessary to provide that result. In line 2 of claim 18, what *parameter*, claim 18 is indefinite. In line 3 of claim 29, what *equations*; claim 20 is indefinite and incomplete. The recitation *capable of* in line 3 of claim 21 is indefinite. In line 5 of claim 1 it is not clear how the controller defined in line 3 as supplying a current to the terminals, is *configured to determine the new value*; claim 21 is indefinite and incomplete. Further in claim 21 same claim same line the recitation *based in part* is indefinite and incomplete. In line 6 of claim 21 it is not clear that the tuning current has any pre-pump value, nor is it clear that such a value is or can be

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m asured; claim 21 is indefinite and incomplete. In lines 2 and 3 of claim 23 it is not clear how the controller is *further configured to stabilize* the laser claim 23 is indefinite and incomplete. In claim 24 it is not clear how the controller is *configured to compensate* for age-induced current drift. Further claims 23 and 24 recite desired results while failing to recite the structure and/or steps to provide those results. In line 7 of claim 25, it is not clear how the processor is *configured to determine a functional relationship*; claim 25 is indefinite and incomplete. In lines 7 and 8 of claim 25 what Bragg peak wavelengths; claim 25 is indefinite and incomplete. In lines 1 and 2 of claim 26, it is not clear what constitutes a spontaneous emission source; since *spontaneous emission* occurs as a result of an absorption band of an active medium being optically matched to a pump band of a pump source and energy being released from the active media in the form of a photon without a resonant condition being established, what is the spontaneous emission source; claim 326 is indefinite and incomplete. The recitation *capable of* in line 2 of claim 26 does not particularly point out and distinctly claim the invention in that nothing is ever illuminated, it is only capable of being illuminated; thus claim 26 is indefinite and incomplete. Since it is not clear that spontaneous emission is necessarily broadband emission, line 3 of claim 26 is inaccurate and thus indefinite and incomplete. In lines 1 and 2 of claim 27 how is the laser marked for discard; claim 27 unclear and is indefinite and incomplete.

**Broberg et al is cited for its teaching of optimizing operation points of a tunable laser.**

**Nam et al is cited for its teaching of a tunable blue laser diode.**

**J hnson is cited for its teaching of wavelength stabilization in tunable semiconductor lasers.**

**Yamaguchi i cited f r its t aching f a wav length tunable semiconductor laser device provided with control regions.**

**Delorme et al is cited for its teaching of a wavelength tunable DBR laser**

**EP0-1195861A2 is cited for its teaching of a DBR laser processing method.**

**Applicants are hereby advised that claims 1-28 may , upon further review of any proposed amendment to over come the rejections of record, be given favorable.**

**Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leon Scott, Jr. whose telephone number is 703-308-4884. The examiner can normally be reached on Monday - Friday, 6:30am - 5:00pm.**

**If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul P. Ip can be reached on (703)308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7721 for regular communications and 703-308-2864 for After Final communications.**

**Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-3431.**

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Leon Scott, Jr.  
**L. Scott, Jr.**  
**Primary Examiner**  
**Art Unit 2828**

**lsjr**

**April 21, 2003**